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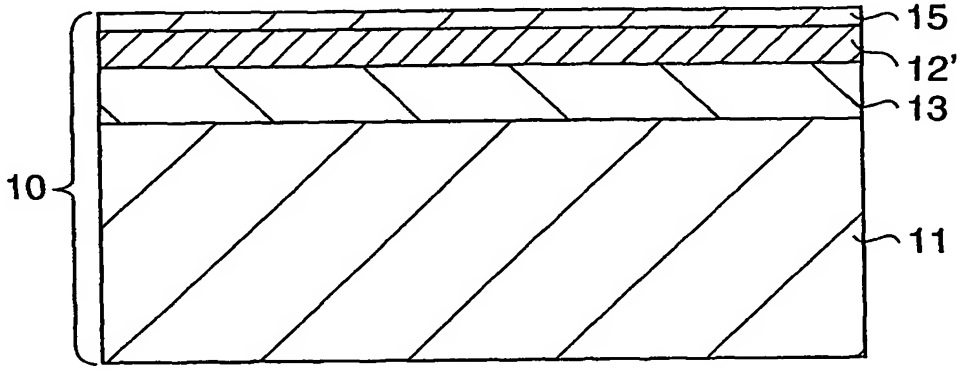
(54) Title: SEMICONDUCTOR MEMBER, MANUFACTURING METHOD THEREOF, AND SEMICONDUCTOR DEVICE



(57) Abstract: An SiGe layer is grown on a silicon substrate. The SiGe layer or the silicon substrate and SiGe layer are porosified by anodizing the SiGe layer to form a strain induction porous layer or a porous silicon layer and strain induction porous layer. An SiGe layer and strained silicon layer are formed on the resultant structure. The SiGe layer in the stacking growth step only needs to be on the uppermost surface of the porous layer. For this reason, an SiGe layer with a low defect density and high concentration can be formed. Since the SiGe layer on the strain induction porous layer can achieve a low defect density without lattice mismatching. Hence, a high-quality semiconductor substrate having a high strained silicon layer can be obtained.

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